

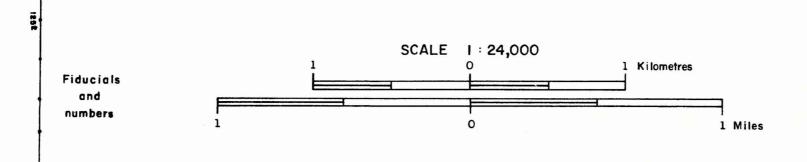


Flight line

## DIGHEM<sup>®</sup> SURVEY

MOUNT ST. HELENS, WASHINGTON ELECTROMAGNETICS FOR

UNITED STATES GEOLOGICAL SURVEY



ANOMALY GRADE 6 5 4 3 2	EM GRADE SYMBOL RANGE	DIGHEM anomalies are divided into six grades of conductivity — thickness product. This product in mhos is the reciprocal of resistance in ohms. The mho is a measure of conductance, and is a geologic porometer. Most swamps yield Grade 1 anomalies but highly conducting clays can give Grade 2 anomalies. The multi — coil anomaly shapes often allow surface conductors to be recognized, and these are indicated by the letter S on this matched the remaining Grade 1 and 2 anomalies could be weak bedrock conductors. The higher grades indicate increasingly higher conductances. Examples:The ore bodies of the Magusi River cam yield Grade 4 anomalies, while Mattabi and Whistle give Grade 5 Graphite and sulphides can span all grades but, in this survey area, field work may show that the different grades indicate different types of conductors.
Depth is greater than . 50 feet : 100 feet : 150 feet : 200 feet	Inphase and Quadrature of Standard Coil Is greater than . 5 ppm 10 ppm 15 ppm 20 ppm Refer to list of anomalies in survey report for the actual ppm values for all coils, and for conductor depths.	The actual mho value is plotted beside the EM grade symbol. The letter is the anomaly identifier. The horizontal rows of dats indicat anomaly amplitude on the flight record, and the vertical column gives the estimated depth. This depth may be unreliable becaus the stronger part of the conductor may be deeper or to one side of the flight line, or because of a shallow dip or conductive overburden effects.
S S? L L? ? C sicos Dire	Conductor oxis Probable surface response Possible surface response Probable line (power, telephone, pipe, or fence) Possible line Questionable anomaly Apparent thickness > 10 m Dip ct magnetic correlation of 100 gammos	DIGHEM maps are designed to provide a correct impression of conductor quality by means of the canductance grade symbols. The symbols can stand olone with geology when planning a followup program. The actual mho values are plotted for those who wish quantitative data. The anomaly ppm and depth are indicated by inconspicuous dots which should not distract from the conductor patterns, while being helpful to those who wish this information. The map provides an interpretation of all conductors in terms of length, strike direction, conductance and depth. The accuracy is comparable to an interpretation from a ground EM survey having the same line spacing.